INTERNATIONAL SEARCH REPORT

PCT/IB2004/050884

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G11B7/0045 G11B7/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 G11B G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
Х	US 6 210 860 B1 (FUKANO TATSUO ET AL) 3 April 2001 (2001-04-03)	1-3,5-7, 11, 14-18,	
Υ	column 1, line 43 - column 3, line 20 column 4, line 40 - column 5, line 34 column 7, line 45 - column 8, line 10	22,23 12,13	
X	US 6 243 127 B1 (BURBERRY MITCHELL S ET AL) 5 June 2001 (2001-06-05)	1,3, 8-10,14, 19-21	
X	column 2, line 17 - column 3, line 17 US 5 572 492 A (OGAWA YOSHIHIRO) 5 November 1996 (1996-11-05) column 4, line 65 - column 31, line 53	1,2,4,11	
	-/		

[]	
χ Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
° Special categories of cited documents:	
 "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed 	 "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
22 September 2004	01/10/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk	Authorized officer
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Stemmer, M
orm PCT/ISA/210 (second sheet) (Jerusay 2004)	

INTERNATIONAL SEARCH REPORT

PCT/IB2004/050884

ation) DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/1B2004/050884
Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
US 6 370 097 B1 (GOTO TOSHIO ET AL) 9 April 2002 (2002-04-09) column 1, line 22 - column 5, line 48	12,13, 25,26
US 5 155 719 A (MASAKAWA YOSHIHIKO) 13 October 1992 (1992-10-13)	24
column 2, line 20 - column 3, line 41	25,26
EP 0 947 351 A (DENSO CORP ; TOYODA CHUO KENKYUSHO KK (JP)) 6 October 1999 (1999-10-06) paragraphs '0007! - '0023!	1,2
US 4 772 897 A (OHKAWA HIDEKI) 20 September 1988 (1988-09-20) column 2, line 28 - column 4, line 64	1,3
US 4 314 256 A (PETROV VYACHESLAV V ET AL) 2 February 1982 (1982-02-02) column 4, line 17 - column 5, line 28	1
·	
	·
•	
	US 6 370 097 B1 (GOTO TOSHIO ET AL) 9 April 2002 (2002-04-09) column 1, line 22 - column 5, line 48 US 5 155 719 A (MASAKAWA YOSHIHIKO) 13 October 1992 (1992-10-13) column 2, line 20 - column 3, line 41 EP 0 947 351 A (DENSO CORP; TOYODA CHUO KENKYUSHO KK (JP)) 6 October 1999 (1999-10-06) paragraphs '0007! - '0023! US 4 772 897 A (OHKAWA HIDEKI) 20 September 1988 (1988-09-20) column 2, line 28 - column 4, line 64 US 4 314 256 A (PETROV VYACHESLAV V ET AL) 2 February 1982 (1982-02-02)

INTERNATIONAL SEARCH REPORT

PCT/IB2004/050884

Patent doc cited in searc		Publication date		Patent family member(s)	-	Publication date
US 62108	360 B1	03-04-2001	JP	2000099988		<u> </u>
		00 01 2001	DE	19916051		07-04-2000
			JP	3501011		14-10-1999
			JP	11353704	DZ A	23-02-2004
			TW	432380		24-12-1999
				432360	D 	01-05-2001
US 62431	.27 B1	05-06-2001	NONE			
US 55724	92 A	05-11-1996	DE	69130344	D1	19-11-1998
			DE	69130344		08-04-1999
			EP	0463784		02-01-1992
			JP	2982925		29-11-1999
			JP	4348990		03-12-1992
US 63700	97 B1	09-04-2002	JP	2000348345	Α	15-12-2000
US 51557	19 A	13-10-1992	 JР	2308425		21-12-1990
			ĴΡ	2773898		09-07-1998
EP 09473						
EF 094/3	51 A	06-10-1999	DE	69808240	D1	31-10-2002
			DE	69808240		26-06-2003
			EP	0947351		06-10-1999
			US	2001044073		22-11-2001
			WO	9920472		29-04-1999
			TW	406263	В	21-09-2000
US 47728	97 A	20-09-1988	JP	1965483	С	25-08-1995
			JP	6095388		24-11-1994
			JP	61289553		19-12-1986
			DE	3619601		18-12-1986
US 43142	56 A	02-02-1982	NONE			ے ہو <u>ں سے در سے م</u> ی سے بی بھا خب شہ بھائی ہوا